

**S2 Table. Effectiveness of scientometric measures.** Higher is better. The most effective measure in each dataset is highlighted in bold.

| Measure                        | Scopus      |             |             |             | Scholar     |             |             |             | Avg.        |             |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                | Bio         | CS          | Eco         | Phy         | Bio         | CS          | Eco         | Phy         |             |             |
| Kendall's $\tau$               | c           | 0.10        | 0.17        | 0.26        | 0.05        | 0.08        | 0.20        | 0.33        | -0.05       | 0.14        |
|                                | $\mu$       | 0.07        | 0.05        | 0.24        | 0.20        | 0.06        | 0.05        | 0.24        | -0.01       | 0.11        |
|                                | h           | 0.21        | 0.20        | 0.22        | 0.00        | 0.22        | 0.26        | 0.27        | -0.10       | 0.16        |
|                                | g           | 0.15        | 0.18        | 0.24        | 0.10        | 0.11        | 0.23        | 0.32        | -0.06       | 0.16        |
|                                | m           | 0.13        | 0.15        | 0.22        | 0.19        | 0.16        | 0.19        | 0.31        | -0.05       | 0.16        |
|                                | o           | 0.02        | 0.10        | 0.27        | 0.02        | -0.03       | 0.13        | 0.32        | -0.09       | 0.09        |
|                                | c-frac      | 0.31        | 0.20        | 0.29        | 0.42        | 0.27        | 0.21        | 0.34        | 0.23        | 0.28        |
|                                | $\mu$ -frac | 0.30        | 0.08        | 0.27        | 0.40        | 0.21        | 0.08        | 0.27        | 0.27        | 0.23        |
|                                | h-frac      | <b>0.34</b> | <b>0.23</b> | 0.27        | <b>0.43</b> | <b>0.36</b> | <b>0.29</b> | 0.32        | <b>0.28</b> | <b>0.32</b> |
|                                | g-frac      | 0.32        | 0.18        | 0.30        | 0.43        | 0.26        | 0.20        | <b>0.35</b> | 0.21        | 0.28        |
| Somers' D                      | m-frac      | 0.32        | 0.18        | 0.26        | 0.41        | 0.30        | 0.21        | 0.32        | 0.14        | 0.27        |
|                                | o-frac      | 0.28        | 0.14        | <b>0.30</b> | 0.41        | 0.19        | 0.15        | 0.33        | 0.20        | 0.25        |
|                                | c           | 0.13        | 0.31        | 0.40        | 0.08        | 0.11        | 0.37        | 0.51        | -0.09       | 0.23        |
|                                | $\mu$       | 0.09        | 0.09        | 0.36        | 0.33        | 0.08        | 0.09        | 0.37        | -0.02       | 0.17        |
|                                | h           | 0.29        | 0.37        | 0.32        | 0.01        | 0.31        | 0.47        | 0.41        | -0.16       | 0.25        |
|                                | g           | 0.21        | 0.33        | 0.36        | 0.16        | 0.15        | 0.41        | 0.49        | -0.11       | 0.25        |
|                                | m           | 0.18        | 0.28        | 0.34        | 0.32        | 0.22        | 0.35        | 0.48        | -0.08       | 0.26        |
|                                | o           | 0.03        | 0.18        | 0.41        | 0.04        | -0.05       | 0.25        | 0.49        | -0.15       | 0.15        |
|                                | c-frac      | 0.43        | 0.36        | 0.45        | <b>0.70</b> | 0.37        | 0.39        | 0.52        | 0.38        | 0.45        |
|                                | $\mu$ -frac | 0.41        | 0.15        | 0.41        | 0.67        | 0.29        | 0.14        | 0.41        | 0.46        | 0.37        |
| Goodman and Kruskal's $\gamma$ | h-frac      | <b>0.47</b> | <b>0.42</b> | 0.40        | 0.69        | <b>0.50</b> | <b>0.52</b> | 0.49        | <b>0.46</b> | <b>0.49</b> |
|                                | g-frac      | 0.44        | 0.32        | 0.45        | 0.69        | 0.36        | 0.37        | <b>0.53</b> | 0.35        | 0.44        |
|                                | m-frac      | 0.45        | 0.33        | 0.40        | 0.69        | 0.42        | 0.39        | 0.50        | 0.24        | 0.42        |
|                                | o-frac      | 0.39        | 0.25        | <b>0.46</b> | 0.69        | 0.26        | 0.27        | 0.50        | 0.34        | 0.39        |
|                                | c           | 0.13        | 0.31        | 0.40        | 0.08        | 0.11        | 0.37        | 0.51        | -0.09       | 0.23        |
|                                | $\mu$       | 0.09        | 0.09        | 0.36        | 0.33        | 0.08        | 0.09        | 0.37        | -0.02       | 0.17        |
|                                | h           | 0.29        | 0.37        | 0.34        | 0.01        | 0.31        | 0.47        | 0.42        | -0.16       | 0.26        |
|                                | g           | 0.21        | 0.34        | 0.36        | 0.16        | 0.15        | 0.42        | 0.50        | -0.11       | 0.25        |
|                                | m           | 0.18        | 0.28        | 0.34        | 0.32        | 0.22        | 0.35        | 0.48        | -0.08       | 0.26        |
|                                | o           | 0.03        | 0.18        | 0.41        | 0.04        | -0.05       | 0.25        | 0.49        | -0.15       | 0.15        |
| Spearman's $\rho$              | c-frac      | 0.43        | 0.36        | 0.45        | 0.70        | 0.37        | 0.39        | 0.52        | 0.38        | 0.45        |
|                                | $\mu$ -frac | 0.41        | 0.15        | 0.41        | 0.67        | 0.29        | 0.14        | 0.41        | 0.46        | 0.37        |
|                                | h-frac      | <b>0.48</b> | <b>0.43</b> | 0.42        | <b>0.70</b> | <b>0.51</b> | <b>0.53</b> | 0.50        | <b>0.47</b> | <b>0.50</b> |
|                                | g-frac      | 0.44        | 0.32        | <b>0.46</b> | 0.70        | 0.36        | 0.37        | <b>0.53</b> | 0.35        | 0.44        |
|                                | m-frac      | 0.45        | 0.33        | 0.40        | 0.69        | 0.42        | 0.39        | 0.50        | 0.24        | 0.42        |
|                                | o-frac      | 0.39        | 0.25        | 0.46        | 0.69        | 0.26        | 0.27        | 0.50        | 0.34        | 0.39        |
|                                | c           | 0.12        | 0.21        | 0.33        | 0.06        | 0.10        | 0.25        | 0.41        | -0.07       | 0.18        |
|                                | $\mu$       | 0.08        | 0.06        | 0.30        | 0.25        | 0.07        | 0.06        | 0.31        | -0.02       | 0.14        |
|                                | h           | 0.26        | 0.25        | 0.27        | 0.00        | 0.29        | 0.32        | 0.34        | -0.12       | 0.20        |
|                                | g           | 0.19        | 0.23        | 0.29        | 0.12        | 0.14        | 0.28        | 0.40        | -0.08       | 0.20        |
| Goodman and Kruskal's $\gamma$ | m           | 0.16        | 0.19        | 0.28        | 0.24        | 0.21        | 0.24        | 0.39        | -0.06       | 0.21        |
|                                | o           | 0.03        | 0.12        | 0.34        | 0.03        | -0.04       | 0.17        | 0.40        | -0.11       | 0.12        |
|                                | c-frac      | 0.40        | 0.24        | 0.37        | <b>0.53</b> | 0.34        | 0.26        | 0.42        | 0.29        | 0.36        |
|                                | $\mu$ -frac | 0.38        | 0.10        | 0.34        | 0.50        | 0.27        | 0.09        | 0.34        | 0.34        | 0.30        |
|                                | h-frac      | <b>0.43</b> | <b>0.28</b> | 0.33        | 0.52        | <b>0.46</b> | <b>0.35</b> | 0.40        | <b>0.35</b> | <b>0.39</b> |
|                                | g-frac      | 0.40        | 0.22        | 0.37        | 0.52        | 0.33        | 0.25        | <b>0.43</b> | 0.27        | 0.35        |
| Spearman's $\rho$              | m-frac      | 0.41        | 0.22        | 0.33        | 0.51        | 0.38        | 0.26        | 0.41        | 0.18        | 0.34        |
|                                | o-frac      | 0.36        | 0.17        | <b>0.38</b> | 0.51        | 0.24        | 0.19        | 0.41        | 0.26        | 0.31        |